

**BEST AVAILABLE COPY**

- 2 -

Application Serial No. 08/051,313  
Attorney Docket No. 0756-0864

The listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Currently Amended) An electro-optical device of an active matrix comprising:  
a gate line provided over a substrate;  
a data line provided over said substrate;  
a reverse stagger type amorphous silicon thin film transistor provided over said substrate and comprising a gate electrode electrically connected to said gate line, a channel region over said gate electrode with a gate insulating film interposed therebetween, a source region and a drain region wherein one of said source region and said drain region is electrically connected to said data line;  
a capacitive wiring provided over said substrate;  
an insulating flattening film over said gate line, said data line, said capacitive wiring and said reverse stagger type amorphous silicon thin film transistor;  
a transparent pixel electrode provided over said insulating flattening film wherein said transparent pixel electrode overlaps said gate line and said capacitive wiring and is electrically connected to the other of said source region and said drain region; and  
a capacitance formed between said capacitive wiring and said transparent pixel electrode with said insulating flattening film interposed therebetween.
2. (Canceled)
3. (Currently Amended) A device according to claim 1 wherein said capacitive wiring is in parallel with said gate line.
4. (Canceled)

BEST AVAILABLE COPY

- 3 -

Application Serial No. 08/051,313  
Attorney Docket No. 0756-0864

5. (Previously Presented) An electro-optical device of an active matrix comprising:

- a gate line of n-th row provided over a substrate;
- a gate line of (n+1)-th row provided over said substrate;
- a gate line of (n+2)-th row provided over said substrate;
- a data line of m-th column provided over said substrate;

a pixel electrode of n-th row and m-th column provided over said substrate and connected with said data line and said gate line of n-th row through corresponding at least one transistor; said pixel electrode overlapping said gate line of (n+1)-th row with an insulator therebetween and overlapping said gate line of n-th row with an insulator therebetween; and

a pixel electrode of (n+1)-th row and m-th column provided over said substrate and connected with said data line and said gate line of (n+1)-th row through corresponding at least one transistor, said pixel electrode of (n+1)-th row and m-th column overlapping said gate line of (n+2)-th row with an insulator therebetween and overlapping said gate line of (n+1)-th row with an insulator therebetween,

wherein said pixel electrode of n-th row and m-th column is provided on an opposite side of said data line to said pixel electrode of (n+1)-th row and m-th column.

6.-49. (Canceled)

50. (Currently Amended) An electro-optical device of an active matrix comprising:

- a gate line provided over a substrate;
- a data line provided over said substrate;

a reverse stagger type amorphous silicon thin film transistor provided over said substrate and comprising a gate electrode electrically connected to said gate line, a

BEST AVAILABLE COPY

- 4 -

Application Serial No. 08/051,313  
Attorney Docket No. 0756-0864

channel region over said gate electrode with a gate insulating film interposed therebetween, a source region and a drain region wherein one of said source region and said drain region is electrically connected to said data line;

a capacitive wiring provided over said substrate;

an insulating flattening film over said gate line, said data line, said capacitive wiring and said reverse stagger type amorphous silicon thin film transistor;

a transparent pixel electrode provided over said insulating flattening film wherein said transparent pixel electrode overlaps said gate line and said capacitive wiring and is electrically connected to the other of said source region and said drain region; and

a capacitance formed between said capacitive wiring and said transparent pixel electrode with said insulating flattening film interposed therebetween,

wherein a sum of a capacitance between the transparent pixel electrode and the gate line and the capacitance between the transparent pixel electrode and the capacitive wiring is above ten times as large as a difference between the capacitance between the transparent pixel electrode and the gate line and the capacitance between the transparent pixel electrode and the capacitive wiring.

51. (Currently Amended) An electro-optical device of an active matrix comprising:

a gate line provided over a substrate;

a data line provided over said substrate;

a reverse stagger type amorphous silicon thin film transistor provided over said substrate and comprising a gate electrode electrically connected to said gate line, a channel region over said gate electrode with a gate insulating film interposed therebetween, a source region and a drain region wherein one of said source region and said drain region is electrically connected to said data line;

a capacitive wiring provided over said substrate;

BEST AVAILABLE COPY

- 5 -

Application Serial No. 08/051,313  
Attorney Docket No. 0756-0864

an insulating flattening film over said gate line, said data line, said capacitive wiring and said reverse stagger type amorphous silicon thin film transistor;

a transparent pixel electrode provided over said insulating flattening film wherein said transparent pixel electrode overlaps said gate line and said capacitive wiring and is electrically connected to the other of said source region and said drain region; and

a capacitance formed between said capacitive wiring and said transparent pixel electrode with said insulating flattening film interposed therebetween,

wherein a capacitance induced by an overlap between said data line and said transparent pixel electrode is smaller than the capacitances between the transparent pixel electrode and the gate line and the transparent pixel electrode and the capacitive wiring.

52. (Currently Amended) An electro-optical device of an active matrix comprising:

a gate line provided over a substrate;

a data line provided over said substrate;

a reverse stagger type amorphous silicon thin film transistor provided over said substrate and comprising a gate electrode electrically connected to said gate line, a channel region over said gate electrode with a gate insulating film interposed therebetween, a source region and a drain region wherein one of said source region and said drain region is electrically connected to said data line;

a capacitive wiring provided over said substrate;

an insulating flattening film over said gate line, said data line, said capacitive wiring and said reverse stagger type amorphous silicon thin film transistor;

a transparent pixel electrode provided over said insulating flattening film wherein said transparent pixel electrode overlaps said gate line and said capacitive wiring and is electrically connected to the other of said source region and said drain region; and

BEST AVAILABLE COPY. 6 -

Application Serial No. 08/051,313  
Attorney Docket No. 0756-0864

a capacitance formed between said capacitive wiring and said transparent pixel electrode with said insulating flattening film interposed therebetween,

wherein a sum of a capacitance between the transparent pixel electrode and the gate line and the capacitance between the transparent pixel electrode and the capacitive wiring is above ten times as large as a difference between the capacitance between the transparent pixel electrode and the gate line and the capacitance between the transparent pixel electrode and the capacitive wiring, and

wherein a capacitance induced by an overlap between said data line and said transparent pixel electrode is smaller than the capacitances between the transparent pixel electrode and the gate line and the transparent pixel electrode and the capacitive wiring.

53. (Currently Amended) An electro-optical device of an active matrix comprising:

a gate line provided over a substrate;

a data line provided over said substrate;

a reverse stagger type amorphous silicon thin film transistor provided over said substrate and comprising a gate electrode electrically connected to said gate line, a channel region over said gate electrode with a gate insulating film interposed therebetween, a source region and a drain region wherein one of said source region and said drain region is electrically connected to said data line;

a capacitive wiring provided over said substrate;

an insulating flattening film over said gate line, said data line, said capacitive wiring and said reverse stagger type amorphous silicon thin film transistor;

a transparent pixel electrode provided over said insulating flattening film wherein said transparent pixel electrode overlaps said gate line and said capacitive wiring and is electrically connected to the other of said source region and said drain region; and

**BEST AVAILABLE COPY**

- 7 -

Application Serial No. 08/051,313  
Attorney Docket No. 0756-0864

a capacitance formed between said capacitive wiring and said transparent pixel electrode with said insulating flattening film interposed therebetween,

wherein when a first pulse is applied to the gate line, a second pulse having an opposite polarity to the first pulse is applied to said capacitive wiring.

54. (Currently Amended) An electro-optical device of an active matrix comprising:

a gate line provided over a substrate;

a data line provided over said substrate;

a reverse stagger type amorphous silicon thin film transistor provided over said substrate and comprising a gate electrode electrically connected to said gate line, a channel region over said gate electrode with a gate insulating film interposed therebetween, a source region and a drain region wherein one of said source region and said drain region is electrically connected to said data line;

a capacitive wiring provided over said substrate;

an insulating flattening film over said gate line, said data line, said capacitive wiring and said reverse stagger type amorphous silicon thin film transistor;

a transparent pixel electrode provided over said insulating flattening film wherein said transparent pixel electrode overlaps said gate line and said capacitive wiring and is electrically connected to the other of said source region and said drain region; and

a capacitance formed between said capacitive wiring and said transparent pixel electrode with said insulating flattening film interposed therebetween,

wherein when a first pulse is applied to the gate line, a second pulse having an opposite polarity to the first pulse is applied to said capacitive wiring, and

after the application of the first pulse is stopped, the application of the second pulse is stopped.

BEST AVAILABLE COPY<sub>8</sub>

Application Serial No. 08/051,313  
Attorney Docket No. 0756-0864

55. (Currently Amended) An electro-optical device of an active matrix comprising:

a gate line provided over a substrate;

a data line provided over said substrate;

a reverse stagger type amorphous silicon thin film transistor provided over said substrate and comprising a gate electrode electrically connected to said gate line, a channel region over said gate electrode with a gate insulating film interposed therebetween, a source region and a drain region wherein one of said source region and said drain region is electrically connected to said data line;

a capacitive wiring provided over said substrate;

an insulating flattening film over said gate line, said data line, said capacitive wiring and said reverse stagger type amorphous silicon thin film transistor;

a transparent pixel electrode provided over said insulating flattening film wherein said transparent pixel electrode overlaps said gate line and said capacitive wiring and is electrically connected to the other of said source region and said drain region; and

a capacitance formed between said capacitive wiring and said transparent pixel electrode with said insulating flattening film interposed therebetween,

wherein a sum of a capacitance between the transparent pixel electrode and the gate line and the capacitance between the transparent pixel electrode and the capacitive wiring is above ten times as large as a difference between the capacitance between the transparent pixel electrode and the gate line and the capacitance between the transparent pixel electrode and the capacitive wiring, and

wherein when a first pulse is applied to the gate line, a second pulse having an opposite polarity to the first pulse is applied to the capacitive wiring.

56. (Currently Amended) An electro-optical device of an active matrix comprising:

a gate line provided over a substrate;

**BEST AVAILABLE COPY**Application Serial No. 08/051,313  
Attorney Docket No. 0756-0864

a data line provided over said substrate;

a reverse stagger type amorphous silicon thin film transistor provided over said substrate and comprising a gate electrode electrically connected to said gate line, a channel region over said gate electrode with a gate insulating film interposed therebetween, a source region and a drain region wherein one of said source region and said drain region is electrically connected to said data line;

a capacitive wiring provided over said substrate;

an insulating flattening film over said gate line, said data line, said capacitive wiring and said reverse stagger type amorphous silicon thin film transistor;

a transparent pixel electrode provided over said insulating flattening film wherein said transparent pixel electrode overlaps said gate line and said capacitive wiring and is electrically connected to the other of said source region and said drain region; and

a capacitance formed between said capacitive wiring and said transparent pixel electrode with said insulating flattening film interposed therebetween,

wherein when a first pulse is applied to the gate line, a second pulse having an opposite polarity to the first pulse is applied to said capacitive wiring, and

wherein a capacitance induced by an overlap between said data line and said transparent pixel electrode is smaller than the capacitances between the transparent pixel electrode and the gate line and the transparent pixel electrode and the capacitive wiring.

57. (Currently Amended) An electro-optical device of an active matrix comprising:

a gate line provided over a substrate;

a data line provided over said substrate;

a reverse stagger type amorphous silicon thin film transistor provided over said substrate and comprising a gate electrode electrically connected to said gate line, a channel region over said gate electrode with a gate insulating film interposed



BEST AVAILABLE COPY 10 -

Application Serial No. 08/051,313  
Attorney Docket No. 0756-0864

therebetween, a source region and a drain region wherein one of said source region and said drain region is electrically connected to said data line;

a capacitive wiring provided over said substrate;

an insulating flattening film over said gate line, said data line, said capacitive wiring and said reverse stagger type amorphous silicon thin film transistor;

a transparent pixel electrode provided over said insulating flattening film wherein said transparent pixel electrode overlaps said gate line and said capacitive wiring and is electrically connected to the other of said source region and said drain region; and

a capacitance formed between said capacitive wiring and said transparent pixel electrode with said insulating flattening film interposed therebetween,

wherein a sum of a capacitance between the transparent pixel electrode and the gate line and the capacitance between the transparent pixel electrode and the capacitive wiring is above ten times as large as a difference between the capacitance between the transparent pixel electrode and the gate line and the capacitance between the transparent pixel electrode and the capacitive wiring,

wherein when a first pulse is applied to the gate line, a second pulse having an opposite polarity to the first pulse is applied to said capacitive wiring, and

wherein a capacitance induced by an overlap between said data line and said transparent pixel electrode is smaller than the capacitances between the transparent pixel electrode and the gate line and the transparent pixel electrode and the capacitive wiring.

58. (Currently Amended) An electro-optical device of an active matrix comprising:

a gate line provided over a substrate;

a data line provided over said substrate;

a reverse stagger type amorphous silicon thin film transistor provided over said substrate and comprising a gate electrode electrically connected to said gate line, a

## BEST AVAILABLE COPY

- 11 -

Application Serial No. 08/051,313  
Attorney Docket No. 0756-0864

channel region over said gate electrode with a gate insulating film interposed therebetween, a source region and a drain region wherein one of said source region and said drain region is electrically connected to said data line;

a capacitive wiring provided over said substrate;

an insulating flattening film over said gate line, said data line, said capacitive wiring and said reverse stagger type amorphous silicon thin film transistor;

a transparent pixel electrode provided over said insulating flattening film wherein said transparent pixel electrode overlaps said gate line and said capacitive wiring and is electrically connected to the other of said source region and said drain region; and

a capacitance formed between said capacitive wiring and said transparent pixel electrode with said insulating flattening film interposed therebetween,

wherein a sum of a capacitance between the transparent pixel electrode and the gate line and the capacitance between the transparent pixel electrode and the capacitive wiring is above ten times as large as a difference between the capacitance between the transparent pixel electrode and the gate line and the capacitance between the transparent pixel electrode and the capacitive wiring,

wherein when a first pulse is applied to the gate line, a second pulse having an opposite polarity to the first pulse is applied to said capacitive wiring, and

after the application of the first pulse is stopped, the application of the second pulse is stopped.

59. (Currently Amended) An electro-optical device of an active matrix comprising:

a gate line provided over a substrate;

a data line provided over said substrate;

a reverse stagger type amorphous silicon thin film transistor provided over said substrate and comprising a gate electrode electrically connected to said gate line, a channel region over said gate electrode with a gate insulating film interposed

BEST AVAILABLE COPY - 12 -

Application Serial No. 08/051,313  
Attorney Docket No. 0756-0864

therebetween, a source region and a drain region wherein one of said source region and said drain region is electrically connected to said data line;

a capacitive wiring provided over said substrate;

an insulating flattening film over said gate line, said data line, said capacitive wiring and said reverse stagger type amorphous silicon thin film transistor;

a transparent pixel electrode provided over said insulating flattening film wherein said transparent pixel electrode overlaps said gate line and said capacitive wiring and is electrically connected to the other of said source region and said drain region; and

a capacitance formed between said capacitive wiring and said transparent pixel electrode with said insulating flattening film interposed therebetween,

wherein a capacitance induced by an overlap between said data line and said transparent pixel electrode is smaller than the capacitances between the transparent pixel electrode and the gate line and the transparent pixel electrode and the capacitive wiring,

wherein when a first pulse is applied to the gate line, a second pulse having an opposite polarity to the first pulse is applied to said capacitive wiring, and

after the application of the first pulse is stopped, the application of the second pulse is stopped.

60. (Currently Amended) An electro-optical device of an active matrix comprising:

a gate line provided over a substrate;

a data line provided over said substrate;

a reverse stagger type amorphous silicon thin film transistor provided over said substrate and comprising a gate electrode electrically connected to said gate line, a channel region over said gate electrode with a gate insulating film interposed therebetween, a source region and a drain region wherein one of said source region and said drain region is electrically connected to said data line;

BEST AVAILABLE COPY

- 13 -

Application Serial No. 08/051,313  
Attorney Docket No. 0756-0864

a capacitive wiring provided over said substrate;

an insulating flattening film over said gate line, said data line, said capacitive wiring and said reverse stagger type amorphous silicon thin film transistor;

a transparent pixel electrode provided over said insulating flattening film wherein said transparent pixel electrode overlaps said gate line and said capacitive wiring and is electrically connected to the other of said source region and said drain region; and

a capacitance formed between said capacitive wiring and said transparent pixel electrode with said insulating flattening film interposed therebetween,

wherein a sum of a capacitance between the transparent pixel electrode and the gate line and the capacitance between the transparent pixel electrode and the capacitive wiring is above ten times as large as a difference between the capacitance between the transparent pixel electrode and the gate line and the capacitance between the transparent pixel electrode and the capacitive wiring,

wherein a capacitance induced by an overlap between said data line and said transparent pixel electrode is smaller than the capacitances between the transparent pixel electrode and the gate line and the transparent pixel electrode and the capacitive wiring,

wherein when a first pulse is applied to the gate line, a second pulse having an opposite polarity to the first pulse is applied to said capacitive wiring, and

after the application of the first pulse is stopped, the application of the second pulse is stopped.

61. (Currently Amended) An electro-optical device of an active matrix comprising:

a gate line provided over a substrate;

a data line provided over said substrate;

a thin film transistor provided over said substrate and comprising a gate electrode electrically connected to said gate line, a channel region, a source region and

BEST AVAILABLE COPY- 14 -

Application Serial No. 08/051,313  
Attorney Docket No. 0756-0864

a drain region wherein one of said source region and said drain region is electrically connected to said data line;

a capacitive wiring provided over said substrate;

an insulating flattening film over said gate line, said data line, said capacitive wiring and said thin film transistor;

a transparent pixel electrode provided over said insulating flattening film wherein said transparent pixel electrode overlaps said gate line and said capacitive wiring and is electrically connected to the other of said source region and said drain region; and

a capacitance formed between said capacitive wiring and said transparent pixel electrode with said insulating flattening film interposed therebetween.

62. (Currently Amended) An electro-optical device of an active matrix comprising:

a gate line provided over a substrate;

a data line provided over said substrate;

a thin film transistor provided over said substrate and comprising a gate electrode electrically connected to said gate line, a channel region, a source region and a drain region wherein one of said source region and said drain region is electrically connected to said data line;

a capacitive wiring provided over said substrate;

an insulating flattening film over said gate line, said data line, said capacitive wiring and said thin film transistor;

a transparent pixel electrode provided over said insulating flattening film wherein said transparent pixel electrode overlaps said gate line and said capacitive wiring and is electrically connected to the other of said source region and said drain region; and

a capacitance formed between said capacitive wiring and said transparent pixel electrode with said insulating flattening film interposed therebetween,

BEST AVAILABLE COPY- 15 -

Application Serial No. 08/051,313  
Attorney Docket No. 0756-0864

wherein a sum of a capacitance between the transparent pixel electrode and the gate line and the capacitance between the transparent pixel electrode and the capacitive wiring is above ten times as large as a difference between the capacitance between the transparent pixel electrode and the gate line and the capacitance between the transparent pixel electrode and the capacitive wiring.

63. (Currently Amended) An electro-optical device of an active matrix comprising:

- a gate line provided over a substrate;

- a data line provided over said substrate;

- a thin film transistor provided over said substrate and comprising a gate electrode electrically connected to said gate line, a channel region, a source region and a drain region wherein one of said source region and said drain region is electrically connected to said data line;

- a capacitive wiring provided over said substrate;

- an insulating flattening film over said gate line, said data line, said capacitive wiring and said thin film transistor;

- a transparent pixel electrode provided over said insulating flattening film wherein said transparent pixel electrode overlaps said gate line and said capacitive wiring and is electrically connected to the other of said source region and said drain region; and

- a capacitance formed between said capacitive wiring and said transparent pixel electrode with said insulating flattening film interposed therebetween,

wherein a capacitance induced by an overlap between said data line and said transparent pixel electrode is smaller than the capacitances between the transparent pixel electrode and the gate line and the transparent pixel electrode and the capacitive wiring.

**BEST AVAILABLE COPY - 16 -**Application Serial No. 08/051,313  
Attorney Docket No. 0756-0864

64. (Currently Amended) An electro-optical device of an active matrix comprising:

a gate line provided over a substrate;

a data line provided over said substrate;

a thin film transistor provided over said substrate and comprising a gate electrode electrically connected to said gate line, a channel region, a source region and a drain region wherein one of said source region and said drain region is electrically connected to said data line;

a capacitive wiring provided over said substrate;

an insulating flattening film over said gate line, said data line, said capacitive wiring and said thin film transistor;

a transparent pixel electrode provided over said insulating flattening film wherein said transparent pixel electrode overlaps said gate line and said capacitive wiring and is electrically connected to the other of said source region and said drain region; and

a capacitance formed between said capacitive wiring and said transparent pixel electrode with said insulating flattening film interposed therebetween,

wherein a sum of a capacitance between the transparent pixel electrode and the gate line and the capacitance between the transparent pixel electrode and the capacitive wiring is above ten times as large as a difference between the capacitance between the transparent pixel electrode and the gate line and the capacitance between the transparent pixel electrode and the capacitive wiring, and

wherein a capacitance induced by an overlap between said data line and said transparent pixel electrode is smaller than the capacitances between the transparent pixel electrode and the gate line and the transparent pixel electrode and the capacitive wiring.

65. (Currently Amended) An electro-optical device of an active matrix comprising:

BEST AVAILABLE COPY - 17 -

Application Serial No. 08/051,313  
Attorney Docket No. 0756-0864

a gate line provided over a substrate;

a data line provided over said substrate;

a thin film transistor provided over said substrate and comprising a gate electrode electrically connected to said gate line, a channel region, a source region and a drain region wherein one of said source region and said drain region is electrically connected to said data line;

a capacitive wiring provided over said substrate;

an insulating flattening film over said gate line, said data line, said capacitive wiring and said thin film transistor;

a transparent pixel electrode provided over said insulating flattening film wherein said transparent pixel electrode overlaps said gate line and said capacitive wiring and is electrically connected to the other of said source region and said drain region; and

a capacitance formed between said capacitive wiring and said transparent pixel electrode with said insulating flattening film interposed therebetween,

wherein when a first pulse is applied to the gate line, a second pulse having an opposite polarity to the first pulse is applied to said capacitive wiring.

66. (Currently Amended) An electro-optical device of an active matrix comprising:

a gate line provided over a substrate;

a data line provided over said substrate;

a thin film transistor provided over said substrate and comprising a gate electrode electrically connected to said gate line, a channel region, a source region and a drain region wherein one of said source region and said drain region is electrically connected to said data line;

a capacitive wiring provided over said substrate;

an insulating flattening film over said gate line, said data line, said capacitive wiring and said thin film transistor;



BEST AVAILABLE COPY - 18 -

Application Serial No. 08/051,313  
Attorney Docket No. 0756-0864

a transparent pixel electrode provided over said insulating flattening film wherein said transparent pixel electrode overlaps said gate line and said capacitive wiring and is electrically connected to the other of said source region and said drain region; and

a capacitance formed between said capacitive wiring and said transparent pixel electrode with said insulating flattening film interposed therebetween,

wherein when a first pulse is applied to the gate line, a second pulse having an opposite polarity to the first pulse is applied to said capacitive wiring, and

after the application of the first pulse is stopped, the application of the second pulse is stopped.

67. (Currently Amended) An electro-optical device of an active matrix comprising:

a gate line provided over a substrate;

a data line provided over said substrate;

a thin film transistor provided over said substrate and comprising a gate electrode electrically connected to said gate line, a channel region, a source region and a drain region wherein one of said source region and said drain region is electrically connected to said data line;

a capacitive wiring provided over said substrate;

an insulating flattening film over said gate line, said data line, said capacitive wiring and said thin film transistor;

a transparent pixel electrode provided over said insulating flattening film wherein said transparent pixel electrode overlaps said gate line and said capacitive wiring and is electrically connected to the other of said source region and said drain region; and

a capacitance formed between said capacitive wiring and said transparent pixel electrode with said insulating flattening film interposed therebetween,

wherein a sum of a capacitance between the transparent pixel electrode and the gate line and the capacitance between the transparent pixel electrode and the

BEST AVAILABLE COPY -

Application Serial No. 08/051,313  
Attorney Docket No. 0756-0864

capacitive wiring is above ten times as large as a difference between the capacitance between the transparent pixel electrode and the gate line and the capacitance between the transparent pixel electrode and the capacitive wiring, and

wherein when a first pulse is applied to the gate line, a second pulse having an opposite polarity to the first pulse is applied to the capacitive wiring.

68. (Currently Amended) An electro-optical device of an active matrix comprising:

a gate line provided over a substrate;

a data line provided over said substrate;

a thin film transistor provided over said substrate and comprising a gate electrode electrically connected to said gate line, a channel region, a source region and a drain region wherein one of said source region and said drain region is electrically connected to said data line;

a capacitive wiring provided over said substrate;

an insulating flattening film over said gate line, said data line, said capacitive wiring and said thin film transistor;

a transparent pixel electrode provided over said insulating flattening film wherein said transparent pixel electrode overlaps said gate line and said capacitive wiring and is electrically connected to the other of said source region and said drain region; and

a capacitance formed between said capacitive wiring and said transparent pixel electrode with said insulating flattening film interposed therebetween,

wherein when a first pulse is applied to the gate line, a second pulse having an opposite polarity to the first pulse is applied to said capacitive wiring, and

wherein a capacitance induced by an overlap between said data line and said transparent pixel electrode is smaller than the capacitances between the transparent pixel electrode and the gate line and the transparent pixel electrode and the capacitive wiring.

BEST AVAILABLE COPY

Application Serial No. 08/051,313  
Attorney Docket No. 0758-0864

69. (Currently Amended) An electro-optical device of an active matrix comprising:

a gate line provided over a substrate;

a data line provided over said substrate;

a thin film transistor provided over said substrate and comprising a gate electrode electrically connected to said gate line, a channel region, a source region and a drain region wherein one of said source region and said drain region is electrically connected to said data line;

a capacitive wiring provided over said substrate;

an insulating flattening film over said gate line, said data line, said capacitive wiring and said thin film transistor;

a transparent pixel electrode provided over said insulating flattening film wherein said transparent pixel electrode overlaps said gate line and said capacitive wiring and is electrically connected to the other of said source region and said drain region; and

a capacitance formed between said capacitive wiring and said transparent pixel electrode with said insulating flattening film interposed therebetween,

wherein a sum of a capacitance between the transparent pixel electrode and the gate line and the capacitance between the transparent pixel electrode and the capacitive wiring is above ten times as large as a difference between the capacitance between the transparent pixel electrode and the gate line and the capacitance between the transparent pixel electrode and the capacitive wiring,

wherein when a first pulse is applied to the gate line, a second pulse having an opposite polarity to the first pulse is applied to said capacitive wiring, and

wherein a capacitance induced by an overlap between said data line and said transparent pixel electrode is smaller than the capacitances between the transparent pixel electrode and the gate line and the transparent pixel electrode and the capacitive wiring.

BEST AVAILABLE COPY

- 21 -

Application Serial No. 08/051,313  
Attorney Docket No. 0756-0864

70. (Currently Amended) An electro-optical device of an active matrix comprising:

a gate line provided over a substrate;

a data line provided over said substrate;

a thin film transistor provided over said substrate and comprising a gate electrode electrically connected to said gate line, a channel region, a source region and a drain region wherein one of said source region and said drain region is electrically connected to said data line;

a capacitive wiring provided over said substrate;

an insulating flattening film over said gate line, said data line, said capacitive wiring and said thin film transistor;

a transparent pixel electrode provided over said insulating flattening film wherein said transparent pixel electrode overlaps said gate line and said capacitive wiring and is electrically connected to the other of said source region and said drain region; and

a capacitance formed between said capacitive wiring and said transparent pixel electrode with said insulating flattening film interposed therebetween,

wherein a sum of a capacitance between the transparent pixel electrode and the gate line and the capacitance between the transparent pixel electrode and the capacitive wiring is above ten times as large as a difference between the capacitance between the transparent pixel electrode and the gate line and the capacitance between the transparent pixel electrode and the capacitive wiring,

wherein when a first pulse is applied to the gate line, a second pulse having an opposite polarity to the first pulse is applied to said capacitive wiring, and

after the application of the first pulse is stopped, the application of the second pulse is stopped.

BEST AVAILABLE COPY.

- 22 -

Application Serial No. 08/051,313  
Attorney Docket No. 0756-0864

71. (Currently Amended) An electro-optical device of an active matrix comprising:

a gate line provided over a substrate;

a data line provided over said substrate;

a thin film transistor provided over said substrate and comprising a gate electrode electrically connected to said gate line, a channel region, a source region and a drain region wherein one of said source region and said drain region is electrically connected to said data line;

a capacitive wiring provided over said substrate;

an insulating flattening film over said gate line, said data line, said capacitive wiring and said thin film transistor;

a transparent pixel electrode provided over said insulating flattening film wherein said transparent pixel electrode overlaps said gate line and said capacitive wiring and is electrically connected to the other of said source region and said drain region; and

a capacitance formed between said capacitive wiring and said transparent pixel electrode with said insulating flattening film interposed therebetween,

wherein a capacitance induced by an overlap between said data line and said transparent pixel electrode is smaller than the capacitances between the transparent pixel electrode and the gate line and the transparent pixel electrode and the capacitive wiring,

wherein when a first pulse is applied to the gate line, a second pulse having an opposite polarity to the first pulse is applied to said capacitive wiring, and

after the application of the first pulse is stopped, the application of the second pulse is stopped.

72. (Currently Amended) An electro-optical device of an active matrix comprising:

a gate line provided over a substrate;

**BEST AVAILABLE COPY- 23 -****Application Serial No. 08/051,313  
Attorney Docket No. 0756-0864**

a data line provided over said substrate;

a thin film transistor provided over said substrate and comprising a gate electrode electrically connected to said gate line, a channel region, a source region and a drain region wherein one of said source region and said drain region is electrically connected to said data line;

a capacitive wiring provided over said substrate;

an insulating flattening film over said gate line, said data line, said capacitive wiring and said thin film transistor;

a transparent pixel electrode provided over said insulating flattening film wherein said transparent pixel electrode overlaps said gate line and said capacitive wiring and is electrically connected to the other of said source region and said drain region; and

a capacitance formed between said capacitive wiring and said transparent pixel electrode with said insulating flattening film interposed therebetween,

wherein a sum of a capacitance between the transparent pixel electrode and the gate line and the capacitance between the transparent pixel electrode and the capacitive wiring is above ten times as large as a difference between the capacitance between the transparent pixel electrode and the gate line and the capacitance between the transparent pixel electrode and the capacitive wiring,

wherein a capacitance induced by an overlap between said data line and said transparent pixel electrode is smaller than the capacitances between the transparent pixel electrode and the gate line and the transparent pixel electrode and the capacitive wiring,

wherein when a first pulse is applied to the gate line, a second pulse having an opposite polarity to the first pulse is applied to said capacitive wiring, and

after the application of the first pulse is stopped, the application of the second pulse is stopped.

BEST AVAILABLE COPY - 24 -

Application Serial No. 08/051,313  
Attorney Docket No. 0756-0864

73. (Currently Amended) An electro-optical device of an active matrix comprising:

a gate line provided over a substrate;

a data line provided over said substrate;

a thin film transistor provided over said substrate and comprising a gate electrode electrically connected to said gate line, a channel region, a source region and a drain region wherein one of said source region and said drain region is electrically connected to said data line;

a capacitive wiring provided over said substrate;

an insulating film over said gate line, said data line, said capacitive wiring and said thin film transistor;

a pixel electrode provided over said insulating film wherein said pixel electrode overlaps said gate line and said capacitive wiring and is electrically connected to the other of said source region and said drain region; and

a capacitance formed between said capacitive wiring and said pixel electrode with said insulating film interposed therebetween,

wherein a sum of a capacitance between the pixel electrode and the gate line and the capacitance between the pixel electrode and the capacitive wiring is above ten times as large as a difference between the capacitance between the pixel electrode and the gate line and the capacitance between the pixel electrode and the capacitive wiring, and

wherein a capacitance induced by an overlap between said data line and said pixel electrode is smaller than the capacitances between the pixel electrode and the gate line and the pixel electrode and the capacitive wiring.

74. (Currently Amended) An electro-optical device of an active matrix comprising:

a gate line provided over a substrate;

BEST AVAILABLE COPY - 25 -

Application Serial No. 08/051,313  
Attorney Docket No. 0756-0864

a data line provided over said substrate;

a thin film transistor provided over said substrate and comprising a gate electrode electrically connected to said gate line, a channel region, a source region and a drain region wherein one of said source region and said drain region is electrically connected to said data line;

a capacitive wiring provided over said substrate;

an insulating film over said gate line, said data line, said capacitive wiring and said thin film transistor;

a pixel electrode provided over said insulating film wherein said pixel electrode overlaps said gate line and said capacitive wiring and is electrically connected to the other of said source region and said drain region; and

a capacitance formed between said capacitive wiring and said pixel electrode with said insulating film interposed therebetween,

wherein when a first pulse is applied to the gate line, a second pulse having an opposite polarity to the first pulse is applied to said capacitive wiring, and

after the application of the first pulse is stopped, the application of the second pulse is stopped.

75. (Currently Amended) An electro-optical device of an active matrix comprising:

a gate line provided over a substrate;

a data line provided over said substrate;

a thin film transistor provided over said substrate and comprising a gate electrode electrically connected to said gate line, a channel region, a source region and a drain region wherein one of said source region and said drain region is electrically connected to said data line;

a capacitive wiring provided over said substrate;



BEST AVAILABLE COPY - 26 -

Application Serial No. 08/051,313  
Attorney Docket No. 0756-0864

an insulating film over said gate line, said data line, said capacitive wiring and said thin film transistor;

a pixel electrode provided over said insulating film wherein said pixel electrode overlaps said gate line and said capacitive wiring and is electrically connected to the other of said source region and said drain region; and

a capacitance formed between said capacitive wiring and said pixel electrode with said insulating film interposed therebetween,

wherein a sum of a capacitance between the pixel electrode and the gate line and the capacitance between the pixel electrode and the capacitive wiring is above ten times as large as a difference between the capacitance between the pixel electrode and the gate line and the capacitance between the pixel electrode and the capacitive wiring,

wherein when a first pulse is applied to the gate line, a second pulse having an opposite polarity to the first pulse is applied to said capacitive wiring, and

after the application of the first pulse is stopped, the application of the second pulse is stopped.

76. (Currently Amended) An electro-optical device of an active matrix comprising:

a gate line provided over a substrate;

a data line provided over said substrate;

a thin film transistor provided over said substrate and comprising a gate electrode electrically connected to said gate line, a channel region, a source region and a drain region wherein one of said source region and said drain region is electrically connected to said data line;

a capacitive wiring provided over said substrate;

an insulating film over said gate line, said data line, said capacitive wiring and said thin film transistor;

BEST AVAILABLE COPY

- 27 -

Application Serial No. 08/051,313  
Attorney Docket No. 0756-0864

a pixel electrode provided over said insulating film wherein said pixel electrode overlaps said gate line and said capacitive wiring and is electrically connected to the other of said source region and said drain region; and

a capacitance formed between said capacitive wiring and said pixel electrode with said insulating film interposed therebetween,

wherein a capacitance induced by an overlap between said data line and said pixel electrode is smaller than the capacitances between the pixel electrode and the gate line and the pixel electrode and the capacitive wiring, and

wherein when a first pulse is applied to the gate line, a second pulse having an opposite polarity to the first pulse is applied to said capacitive wiring.

77. (Currently Amended) An electro-optical device of an active matrix comprising:

a gate line provided over a substrate;

a data line provided over said substrate;

a thin film transistor provided over said substrate and comprising a gate electrode electrically connected to said gate line, a channel region, a source region and a drain region wherein one of said source region and said drain region is electrically connected to said data line;

a capacitive wiring provided over said substrate;

an insulating film over said gate line, said data line, said capacitive wiring and said thin film transistor;

a pixel electrode provided over said insulating film wherein said pixel electrode overlaps said gate line and said capacitive wiring and is electrically connected to the other of said source region and said drain region; and

a capacitance formed between said capacitive wiring and said pixel electrode with said insulating film interposed therebetween,

BEST AVAILABLE COPY

- 28 -

Application Serial No. 08/051,313  
Attorney Docket No. 0756-0864

wherein a capacitance induced by an overlap between said data line and said pixel electrode is smaller than the capacitances between the pixel electrode and the gate line and the pixel electrode and the capacitive wiring, and

wherein when a first pulse is applied to the gate line, a second pulse having an opposite polarity to the first pulse is applied to said capacitive wiring, and

after the application of the first pulse is stopped, the application of the second pulse is stopped.

78. (Previously Presented) An electro-optical device of an active matrix comprising:

a first gate line and a second gate line extending in parallel provided over a substrate;

a data line provided over said substrate and extending across said first and second gate lines;

a thin film transistor provided over said substrate and comprising a gate electrode electrically connected to said first gate line, a channel region, a source region and a drain region wherein one of said source region and said drain region is electrically connected to said data line;

an insulating flattening film over said first and second gate lines, said data line, and said thin film transistor;

a transparent pixel electrode provided over said insulating flattening film wherein said transparent pixel electrode overlaps said first and second gate lines and is electrically connected to the other of said source region and said drain region; and

a first capacitance formed between said first gate line and said transparent pixel electrode with said insulating flattening film interposed therebetween; and

a second capacitance formed between said second gate line and said transparent pixel electrode with said insulating flattening film interposed therebetween,

BEST AVAILABLE COPY - 29 -

Application Serial No. 08/051,313  
Attorney Docket No. 0756-0864

wherein a sum of the first and second capacitances is above ten times as large as a difference between the first and second capacitances.

79. (Previously Presented) An electro-optical device of an active matrix comprising:

a first gate line and a second gate line extending in parallel provided over a substrate;

a data line provided over said substrate and extending across said first and second gate lines;

a thin film transistor provided over said substrate and comprising a gate electrode electrically connected to said first gate line, a channel region, a source region and a drain region wherein one of said source region and said drain region is electrically connected to said data line;

an insulating flattening film over said first and second gate lines, said data line, and said thin film transistor;

a transparent pixel electrode provided over said insulating flattening film wherein said transparent pixel electrode overlaps said first and second gate lines and is electrically connected to the other of said source region and said drain region; and

a first capacitance formed between said first gate line and said transparent pixel electrode with said insulating flattening film interposed therebetween; and

a second capacitance formed between said second gate line and said transparent pixel electrode with said insulating flattening film interposed therebetween,

wherein a sum of the first and second capacitances is above ten times as large as a difference between the first and second capacitances,

wherein a capacitance induced by an overlap between said data line and said transparent pixel electrode is smaller than the first and second capacitances.

BEST AVAILABLE COPY

- 30 -

Application Serial No. 08/051,313  
Attorney Docket No. 0756-0864

80. (Previously Presented) An electro-optical device of an active matrix comprising:

a first gate line and a second gate line extending in parallel provided over a substrate;

a data line provided over said substrate and extending across said first and second gate lines;

a thin film transistor provided over said substrate and comprising a gate electrode electrically connected to said first gate line, a channel region, a source region and a drain region wherein one of said source region and said drain region is electrically connected to said data line;

an insulating flattening film over said first and second gate lines, said data line, and said thin film transistor;

a transparent pixel electrode provided over said insulating flattening film wherein said transparent pixel electrode overlaps said first and second gate lines and is electrically connected to the other of said source region and said drain region; and

a first capacitance formed between said first gate line and said transparent pixel electrode with said insulating flattening film interposed therebetween; and

a second capacitance formed between said second gate line and said transparent pixel electrode with said insulating flattening film interposed therebetween,

wherein a sum of the first and second capacitances is above ten times as large as a difference between the first and second capacitances, and

wherein a capacitance induced by an overlap between said data line and said transparent pixel electrode is smaller than the first and second capacitances.

81. (Previously Presented) An active-matrix device comprising:

a substrate having an insulating surface;

first and second pixel electrodes arranged in a first column over said substrate;

BEST AVAILABLE COPY<sup>31</sup> -Application Serial No. 08/051,313  
Attorney Docket No. 0756-0864

a third pixel electrode arranged in a second column over said substrate, each of said first, second and third pixel electrodes being provided with at least one thin film transistor;

first, second and third gate lines extending in parallel over said substrate,

wherein said first gate line drives the thin film transistor associated with said first pixel electrode and said first pixel electrode overlaps said first gate line to form a first capacitance therebetween;

said second gate line drives the thin film transistor associated with the third pixel electrode and extends below said first pixel electrode to form a second capacitance between said second gate line and said first pixel electrode;

said third gate line drives the thin film transistor associated with the second pixel electrode and extends below said third pixel electrode to form a third capacitance between said third gate line and said third pixel electrode,

wherein a sum of the first and second capacitances is above ten times as large as a difference between the first and second capacitances.

82. (Previously Presented) An active-matrix device comprising:

a substrate having an insulating surface;

first and second pixel electrodes arranged in a first column over said substrate;

a third pixel electrode arranged in a second column over said substrate, each of said first, second and third pixel electrodes being provided with at least one thin film transistor;

first, second and third gate lines extending in parallel over said substrate,

first and second data lines extending across the first, second and third gate lines wherein said first data line is connected to the thin film transistor associated with the first pixel electrode,

**BEST AVAILABLE COPY32 -**Application Serial No. 08/051,313  
Attorney Docket No. 0758-0864

wherein said first gate line drives the thin film transistor associated with said first pixel electrode and said first pixel electrode overlaps said first gate line to form a first capacitance therebetween;

said second gate line drives the thin film transistor associated with the third pixel electrode and extends below said first pixel electrode to form a second capacitance between said second gate line and said first pixel electrode;

said third gate line drives the thin film transistor associated with the second pixel electrode and extends below said third pixel electrode to form a third capacitance between said third gate line and said third pixel electrode,

a capacitance induced by an overlap between said first data line and said first pixel electrode is smaller than the first and second capacitances.

83. (Previously Presented) An active-matrix device comprising:

a substrate having an insulating surface;

first and second pixel electrodes arranged in a first column over said substrate;

a third pixel electrode arranged in a second column over said substrate, each of said first, second and third pixel electrodes being provided with at least one thin film transistor;

first, second and third gate lines extending in parallel over said substrate,

first and second data lines extending across the first, second and third gate lines wherein said first data line is connected to the thin film transistor associated with the first pixel electrode,

wherein said first gate line drives the thin film transistor associated with said first pixel electrode and said first pixel electrode overlaps said first gate line to form a first capacitance therebetween;

said second gate line drives the thin film transistor associated with the third pixel electrode and extends below said first pixel electrode to form a second capacitance between said second gate line and said first pixel electrode;

BEST AVAILABLE COPY - 33 -

Application Serial No. 08/051,313  
Attorney Docket No. 0756-0864

said third gate line drives the thin film transistor associated with the second pixel electrode and extends below said third pixel electrode to form a third capacitance between said third gate line and said third pixel electrode,

a sum of the first and second capacitances is above ten times as large as a difference between the first and second capacitances, and

a capacitance induced by an overlap between said first data line and said first pixel electrode is smaller than the first and second capacitances.

84. (Previously Presented) The electro-optical device of claim 73, wherein the pixel electrode is transparent.

85. (Previously Presented) The electro-optical device of claim 74, wherein the pixel electrode is transparent.

86. (Previously Presented) The electro-optical device of claim 75, wherein the pixel electrode is transparent.

87. (Previously Presented) The electro-optical device of claim 76, wherein the pixel electrode is transparent.

88. (Previously Presented) The electro-optical device of claim 77, wherein the pixel electrode is transparent.

89. (Currently Amended) The electro-optical device of claim 75, wherein a capacitance induced by an overlap between said data line and said pixel electrode is smaller than the capacitances between the pixel electrode and the gate line and the pixel electrode and the capacitive wiring.



**BEST AVAILABLE COPY - 34 -****Application Serial No. 08/051,313  
Attorney Docket No. 0758-0864**

90. (Currently Amended) The electro-optical device of claim 76, wherein a sum of a capacitance between the pixel electrode and the gate line and the capacitance between the pixel electrode and the capacitive wiring is above ten times as large as a difference between the capacitance between the pixel electrode and the gate line and the capacitance between the pixel electrode and the capacitive wiring.

91. (Currently Amended) The electro-optical device of claim 77, wherein a sum of a capacitance between the pixel electrode and the gate line and the capacitance between the pixel electrode and the capacitive wiring is above ten times as large as a difference between the capacitance between the pixel electrode and the gate line and the capacitance between the pixel electrode and the capacitive wiring.

92. (Previously Presented) The electro-optical device of claim 78, wherein the thin film transistor is a reverse stagger type amorphous silicon thin film transistor.

93. (Previously Presented) The electro-optical device of claim 79, wherein the thin film transistor is a reverse stagger type amorphous silicon thin film transistor.

94. (Previously Presented) The electro-optical device of claim 80, wherein the thin film transistor is a reverse stagger type amorphous silicon thin film transistor.

95. (Previously Presented) The electro-optical device of claim 50, wherein the insulating flattening film comprises polyimide.

96. (Previously Presented) The electro-optical device of claim 51, wherein the insulating flattening film comprises polyimide.

**REST AVAILABLE COPY 35 -****Application Serial No. 08/051,313  
Attorney Docket No. 0756-0864**

97. (Previously Presented) The electro-optical device of claim 52, wherein the insulating flattening film comprises polyimide.

98. (Previously Presented) The electro-optical device of claim 53, wherein the insulating flattening film comprises polyimide.

99. (Previously Presented) The electro-optical device of claim 54, wherein the insulating flattening film comprises polyimide.

100. (Previously Presented) The electro-optical device of claim 55, wherein the insulating flattening film comprises polyimide.

101. (Previously Presented) The electro-optical device of claim 56, wherein the insulating flattening film comprises polyimide.

102. (Previously Presented) The electro-optical device of claim 57, wherein the insulating flattening film comprises polyimide.

103. (Previously Presented) The electro-optical device of claim 58, wherein the insulating flattening film comprises polyimide.

104. (Previously Presented) The electro-optical device of claim 59, wherein the insulating flattening film comprises polyimide.

105. (Previously Presented) The electro-optical device of claim 60, wherein the insulating flattening film comprises polyimide.

- 36 -

BEST AVAILABLE COPY

Application Serial No. 08/051,313  
Attorney Docket No. 0756-0864

106. (Previously Presented) The electro-optical device of claim 61, wherein the insulating flattening film comprises polyimide.

107. (Previously Presented) The electro-optical device of claim 62, wherein the insulating flattening film comprises polyimide.

108. (Previously Presented) The electro-optical device of claim 63, wherein the insulating flattening film comprises polyimide.

109. (Previously Presented) The electro-optical device of claim 64, wherein the insulating flattening film comprises polyimide.

110. (Previously Presented) The electro-optical device of claim 65, wherein the insulating flattening film comprises polyimide.

111. (Previously Presented) The electro-optical device of claim 66, wherein the insulating flattening film comprises polyimide.

112. (Previously Presented) The electro-optical device of claim 67, wherein the insulating flattening film comprises polyimide.

113. (Previously Presented) The electro-optical device of claim 68, wherein the insulating flattening film comprises polyimide.

114. (Previously Presented) The electro-optical device of claim 69, wherein the insulating flattening film comprises polyimide.

**BEST AVAILABLE COPY - 37 -****Application Serial No. 08/051,313  
Attorney Docket No. 0756-0864**

115. (Previously Presented) The electro-optical device of claim 70, wherein the insulating flattening film comprises polyimide.

116. (Previously Presented) The electro-optical device of claim 71, wherein the insulating flattening film comprises polyimide.

117. (Previously Presented) The electro-optical device of claim 72, wherein the insulating flattening film comprises polyimide.

118. (Previously Presented) The electro-optical device of claim 78, wherein the insulating flattening film comprises polyimide.

119. (Previously Presented) The electro-optical device of claim 79, wherein the insulating flattening film comprises polyimide.

120. (Previously Presented) The electro-optical device of claim 80, wherein the insulating flattening film comprises polyimide.